

Cookbook of Activities for Driver Education

MT CURRICULUM GUIDE

M5

Objective: Blind Spot Revealed

INGREDIENTS

Paper with an X and big black dot on it

INSTRUCTIONS

- Close your right eye, or cover it with your hand
- Stare at the black circle
- While looking at the circle, use your side peripheral vision to see the X
- Slowly move your head towards the paper
- The X should completely disappear
- Move Closer and it will re-appear

X



Explanation:

The eyes relay the image that forms on the retina to the brain via the Optic Nerves. These nerves connect to the retina from the *inside*, a quirk of evolution. Thus there is a **blind spot** at the back of each of our eyes where no rods or cones can interpret the image formed there.

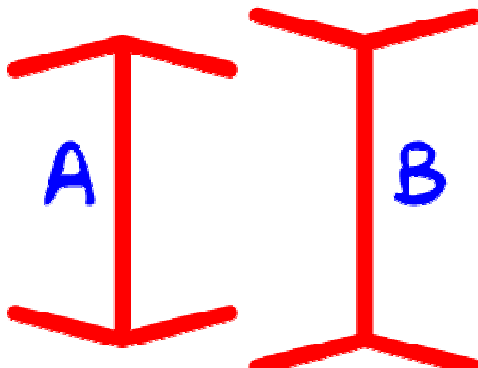
MT CURRICULUM GUIDE

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Objective: Discovering optical illusions

INGREDIENTS

Draw this diagram on the board or on an overhead transparency



INSTRUCTIONS

Tell students to look at the two shapes.

Ask: Which appears to be the longest - A or B?

Explanation:

In the case of the two red bars, the simple act of adding arrow heads and ends tricks the brain into misjudging size. This turns out to be particularly easy to do.

In bar A, the outward-pointing arrows rigidly define the size of the bar. In bar B, however, the opposite is true - the arrow *flights* loosely define the ends of the bar.

The overall size of object B is greater than that of A. This immediately tricks our brain into increasing the significance of B. Its close proximity to A seals the deal, and we will always choose B as the biggest. Use a ruler, however, and you will find **no difference**.